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(71) Applicant (for all designated States except US):
COPPE/UFRJ - COORDENAÇÃO DOS PROGRAMAS DE PÓS GRADUAÇÃO DE ENGENHARIA DA UNIVERSIDADE FEDERAL DO RIO DE JANEIRO [BR/BR]; Centro de Tecnologia, s/n°, Bloco G, CEP-21941-590 Ilha do Fundão, RJ (BR).

(72) Inventors; and

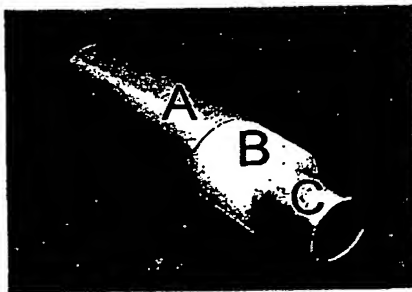
(75) Inventors/Applicants (for US only): SEGEN FARID, Es-
tefen [BR/BR]; Rua Filadélfia, 08, Santa Tereza, CEP-
20240-250 Rio de Janeiro, RJ (BR). NETTO, Theodoro,
Antoun [BR/BR]; Rua Leila Diniz, 671, São Francisco,
CEP-24600-110 Niterói, RJ (BR). PASQUALINO, Ilson,
Paranhos [BR/BR]; Rua Domingues de Sá, 206/2302 A
Icará, CEP-24220-091 Niterói, RJ (BR).

(74) Agent: GONCALVES CASTRO, Joubert; Praia de
Icará, 237/1301 B - Icará, CEP-24230-003 Niterói, RJ
(BR).

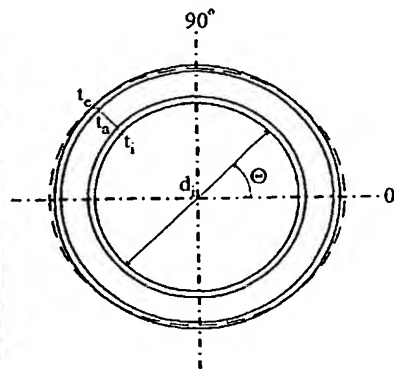
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(54) Title: SANDWICH PIPES FOR ULTRA-DEEP WATERS



(a)



(b)

(57) Abstract: This invention
comprises a sandwich pipe, which
consists of a tubular rigid system with
three superposed layers (A, B, C),
thermal and mechanical functions,
to be used for the transportation of
warmed hydrocarbons or general
fluids in ultra-deep waters.

D_i (mm)	t_i (mm)	σ_m (MPa)	t_e (mm)	σ_{α} (MPa)	t_a (mm)	P_{∞} (Mpa)
45.91	1.62	199.79	1.62	200.93	11.29	43.35
47.10	1.63	195.20	1.65	192.10	11.13	34.09
47.40	1.68	180.71	1.47	141.57	4.23	10.98
47.37	1.67	180.71	1.47	141.57	4.30	12.11
46.28	1.68	186.82	1.62	206.52	11.26	37.64
46.52	1.62	194.37	1.61	206.52	11.10	31.14
46.54	1.70	186.82	1.46	141.57	4.62	20.31
46.65	1.69	186.82	1.49	160.37	4.69	17.13

Table 1

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